

September 19, 2005

Project No. 655

Ms. Darcy Bering Sonoma County Department of Health Services Environmental Health Division 475 Aviation Boulevard, Suite 220 Santa Rosa, California 95403

Workplan for Monitoring Well Abandonment 5757 McFarlane Road Sebastopol, California

Dear Ms. Bering:

This workplan describes the activities to be performed in association with abandonment of the monitoring wells located at 5757 McFarlane Road, Sebastopol, California (Plates 1 and 2). The tasks to be performed by Brunsing Associates, Inc. (BAI) includes the abandonment of the on site monitoring wells and the disposal of generated waste. This workplan was prepared as required by the Sonoma County Department of Health Services – Environmental Health Division (SCDHS-EHD) in their letter dated September 8, 2005.

#### **Site History**

An underground storage tank (UST) used for storing gasoline was removed from the site, in either 1983 or 1988. During removal of the UST, soil contamination was observed. An investigation was proposed in a workplan prepared by Edd Clark & Associates (ECA), dated August 20, 1999. The ECA workplan was approved by the SCDHS-EHD in their letter dated August 24, 1999.

On December 1, 1999, four soil borings (B-1 through B-4) were drilled at the site, and soil and groundwater samples were collected for laboratory analysis. A total of 16 soil samples were collected for analysis. Three of the sixteen soil samples reportedly contained total petroleum hydrocarbons (TPH) as gasoline ranging from 120 to 710 milligrams per kilogram (mg/kg). All four groundwater samples collected from the soil borings were reported to contain TPH as gasoline and benzene, toluene, ethylbenzene, and xylenes (BTEX). A sensitive receptor survey (SRS) was also conducted in December 1999. The results of the investigation and SRS are presented in the BAI document "Soil and Groundwater Investigation", dated January 12, 2000.

P.O. Box 588, Windsor, CA 95492 Phone: (707) 838-3027 Fax: (707) 838-4420

Ms. Darcy Bering September 19, 2005 Page 2

On September 18 and 19, 2000, four soil borings were drilled and three of the four borings were converted to monitoring wells MW-1 through MW-3 (Plate 2). Soil and groundwater samples were collected from the soil borings and monitoring wells for laboratory analysis. The results of the investigation are presented in the BAI document "Soil and Groundwater Investigation Phase II", dated January 8, 2001. The document also included additional SRS data as required by the SCDHS-EHD in their letter dated May 10, 2000.

On May 17, 2002, BAI supervised the construction of one monitoring well (MW-4). Three soil samples were collected and submitted for laboratory analysis. TPH as gasoline, BTEX, petroleum oxygenates and lead scavengers were not detected in any of the samples collected from boring MW-4. The results of the investigation are presented in the BAI document dated October 7, 2002.

On September 27 and 28, 2004, BAI supervised the implementation of a corrective action plan (CAP) that was prepared to address the residual contaminated soils in the vicinity of the former UST location. The CAP was approved by the SCDHS-EHD in their letter dated June 16, 2003. The implemented CAP consisted of the abandonment of monitoring well MW-3 on September 24, 2004, and the overexcavation of contaminated soil. Sidewall, bottom, and stockpile soil samples were collected as part of the excavation work conducted. Groundwater was not encountered during the excavation activities. The final excavation limits are shown on Plate 2. The results of the overexcavation are included in the BAI document "Soil Excavation Report", dated December 8, 2004.

### **Monitoring Well Abandonment**

Prior to abandonment of the three on site monitoring wells (MW-1, MW-2, and MW-4), a monitoring well abandonment permit will be obtained from the SCDHS-EHD. The monitoring wells will be abandoned, in accordance with Bulletin 74-90, California Well Standards, California Department of Water Resources, June 1991, by a C-57 licensed driller. Each of the monitoring wells will be overdrilled using hollow-stem augers in an effort to remove as much of the well casing material as possible. After the well has been drilled out, the borehole will be sealed with a cement / bentonite slurry mixture to seal off the surface from the groundwater zone and eliminate any potential contaminate pathways to groundwater. The cement / bentonite slurry mixture will be emplaced with the use of tremmie pipe equipment. The surface completion will match the nearby surrounding surface grade by backfilling the top of the boring with soil.

All materials removed during the well abandonment activities will be placed in labeled 55-gallon drums and temporarily stored on site. The drums will be disposed at an appropriate disposal or recycling facility. A letter documenting the abandonment of the three on site monitoring wells and the disposal of the drums of generated waste will be prepared and submitted to the SCDHS-EHD. A site safety plan to be followed during the well abandonment activities is included in Appendix A.



Ms. Darcy Bering September 19, 2005 Page 3

A permit application for the abandonment of the four on site monitoring wells is enclosed. Should you have any questions regarding this workplan, please contact us at (707) 838-3027.

Sincerely,

Steve Silva

Project Geologist

Diana M. Dickerson, P.G., R.E.A.

e Zie

Principal Geologist



Attachments:

Table 1. Well Construction Details

Plate 1. Site Vicinity Map

Plate 2. Site Map

Appendix A. Site Health and Safety Plan

Drilling Permit Application Package

cc: Mr. Gerald Cook, Julius E. Cook trust et al

Mr. Wayne Cook

Mr. Luis Rivera, NCRWQCB

Mr. Kurt Monser and Ms. Debra Kroft



# **TABLE**





TABLE 1
Well Construction Details
5757 McFarlane Road
Sebastopol, California

					T		T		T		1	
Existing	t	, or	Abandoned	T. t. i.o. i.o.	CAISING	Transfer	CAISTILE	Ahandoned	ANTONINOT Y	Existing		
PVC Casing		Elevation	(MSL)	i t	187.75	17 00 7	188.47	190 20	707.70	189.28	10.7.50	
Screen	***	Slot Size	(inches)		0.020	1	0.020	0000	070.0	0000	0.020	
Caeina	Casume	Diameter	(inches)		7		7		7	•	7	
Total Wall	10tal Well	Depth	(fapt)		30		30		30		30	
	Screened	Interval	(foot)	(TOOK)	15 to 30	22 24	15 to 30		15 to 30		15 to 30	-dammer - market
	Total Borehole	Denth	w.do.	(reer)	30	20	30	00	30		30	
	Borehole	Diamotor	Diameter	(inches)	C	0	c	0	×		~	>
<u></u>		7-1401104	MStaneu	By	11.5	BAI		BAI	ביים	DAI	TAG	יייע
		ļ		Installed	Į	9/18/2000		9/18/2000	000000000000000000000000000000000000000	7/18/2000	C000/21/2	2/1/2007
			Well	Number		MW.		MW-2	Α	MW-3	7 6357 4	M.W.4

BAI = Brunsing Associates, Inc.

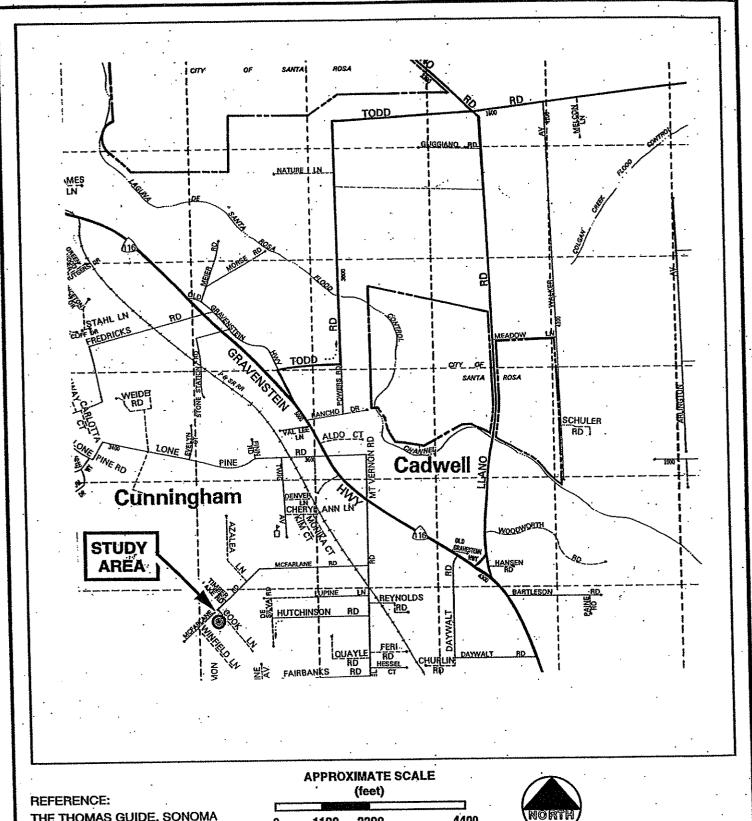
MSL = mean sea level

 $^{\rm A}$  Monitoring well MW-3 was abandoned on September 24, 2004

Page 1 of 1

# **PLATES**





THE THOMAS GUIDE, SONOMA

COUNTY, 1992.

4400 1100 2200



PROJECT NO.:	655.003	
DRAWN BY:	MTE	2/24/00
CHECKED BY:	AL	·
APPROVED BY:		
REVISED BY:	,	

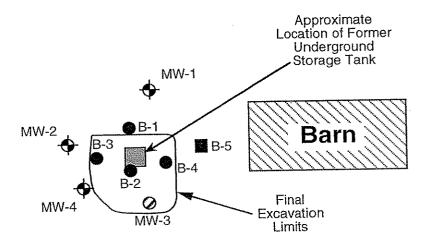
**BACE Environmental** A Division Of Brunsing Associates, Inc.

<u>PLATE 1</u> Site Vicinity Map 5757 McFarlane Road Sebastopol, California

## Cook Lane

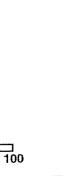
# 5757 McFarlane Road Property

~ Field ~



~ Field ~

DW-1 →



Legend					
MW-4	<b>\Phi</b>	Monitoring well location and number			
MW-3	0	Abandoned monitoring well location and number			
DW-1	$\Phi$	Domestic well location and number			
B-4	•	December 1, 1999 soil boring location and number			
B-5		September 19, 2000 soil boring location and number			
		Final excavation limits			

PROJECT NO.: 655				
DRAWN BY:	SMS	11/11/04		
CHECKED BY:				
APPROVED BY:	EMN	3/23/05		
REVISED:	SMS	'3/1 <i>7</i> /05		

25

APPROXIMATE SCALE (feet)

50

Brunsing Associates, Inc. P.O. Box 588 \_ Windsor, California 95492

SITE MAP 5757 McFarlane Road Sebastopol, California

PLATE 2

# APPENDIX A

Site Health and Safety Plan



### SITE HEALTH AND SAFETY PLAN

# 5757 McFarlane Road Sebastopol, California

### Prepared for:

Mr. Gerald Cook Julius E. Cook Trust et al. 1893 Woodland Avenue #18 East Palo Alto, California 94030

#### Prepared by:

Brunsing Associates, Inc. P. O. Box 588 Windsor, California (707) 838-3027

Project No. 655

September 14, 2004



# SITE HEALTH AND SAFETY PLAN

5757 McFarlane Road Sebastopol, California

Prepared by:

Steve Silva

Project Geologist

Reviewed by:

Diana M. Dickerson, R.G., R.E.A.

Principal Geologist



# TABLE OF CONTENTS

1.0	INTR	ODUCT	NOF	<u>Page No.</u> 1
				1
2.0	KEY	PERSO	NNEL	•
3.0	PRO.	2 2 2 3 3 3		
	3.1		ial Site Safety Hazards	2
		3.1.1	Drill Rig Safety Hazards	3
	2.2	3.1.2	Soil Handling and Excavation Hazards ation of Potential Hazards	3
	3.2	2 2 1	Striking Underground and Overhead Utilities	3
		3.2.1	Exposure to Petroleum Products and Chemical Hazards	
		سته سته	3.2.2.1 Inhalation	4
			3.2.2.2 Skin Absorption	5
			3.2.2.3 Ingestion	6
			3.2.2.4 Eye Contact	6 6
		3.2.3	Noise Exposure	7
		3.2.4	Falling, Slipping and Tripping	7
			Entering Trenches/Excavations Heat Stress	7
		3.2.0	Hear areas	
4.0	WO	RK ZON	IES AND SECURITY MEASURES	7
5.0	DEC	CONTAI	MINATION PROCEDURES	8
6.0	EM	ERGEN(	CY RESPONSE INFORMATION	8
7.0	HE	ALTH A	ND SAFETY MEETING	9
PLA	ATES: Plat Plat	te 1 - Hos te 2 - Hos	spital Route Map spital Location Map	
AT	TACHI	MENTS:		

Attachment A - Health and Safety Plan Signature Form



#### 1.0 INTRODUCTION

This Site Health and Safety Plan (Plan), outlines recommended health and safety procedures to be followed by personnel during environmental work conducted at the subject site. This Plan is designed in accordance with the requirements of OSHA Title 29, CFR 1910.120, "Hazardous Waste Operations and Emergency Response". The Plan is intended to accomplish the following:

Assure that both project personnel and public health and safety concerns are properly addressed, provide site management with sufficiently detailed information to implement all health and safety functions at the site, provide site workers with appropriate specific health and safety guidelines, be useful in training workers in the hazards specific to the remediation project.

The procedures presented herein are intended to serve as guidelines; they are not a substitute for the sound judgment of on-site personnel. As work progresses, appropriate revisions will be made by the Site Safety Officer, Project Geologist, Project Engineer, Project Manager, and/or Field Manager as warranted. All subcontractors that work within the exclusion zone will be ultimately responsible for the health and safety of their employees on this project and will be expected to provide a task specific Health and Safety Plan to supplement this plan.

#### 2.0 KEY PERSONNEL

The key supervisory personnel that may work on the project are named below. Each of these individuals has completed a minimum of 40 hours of hazardous waste site operations training and yearly eight-hour refresher training.

Diana M. Dickerson, Brunsing Associates, Inc., Division Manager

Steve Silva, Brunsing Associates, Inc., Project Geologist/Site Safety Officer/Project Manager

Dave Conley, Brunsing Associates, Inc., Senior Geologist/Site Safety Officer

Bill Coset, Brunsing Associates, Inc., Project Geologist/Site Safety Officer

Michelle Floyd-Fredrick, Brunsing Associates, Inc., Project Engineer

Chris Scott, Brunsing Associates, Inc., Senior Engineering Technician



## 3.0 PROJECT HAZARD ANALYSIS

The following discussion provides information about the physical and health hazards that may be encountered on this project. The main physical hazards will be associated with one or more of the following: drilling and excavation operations, movement and operation of heavy equipment, underground and overhead utilities, potential slip, trip and fall hazards, and noise hazards. The main chemical hazard will be exposure to petroleum products, which may be encountered in soils and/or groundwater at a range of concentrations. Not all of the tasks listed below will need to be performed to complete the project.

#### 3.1 Potential Site Safety Hazards

## 3.1.1 Drill Rig Safety Hazards

The operation of a drill rig is recognized as a hazardous activity given the nature of the equipment and the field environment in which the drill rig will operate. The principal hazards associated with drill rig operation will include:

Striking underground and overhead utilities

Exposure to petroleum products

Noise exposure

Falling, slipping, and tripping.

Breathing in cement dust during grouting operations. To avoid this physical safety hazard, the drilling firm employed as a subcontractor will instruct their staff of the safety procedures to follow in operating the equipment. The remaining workers on the project will stay upwind of the drilling operation whenever possible and maintain a safe distance from the drilling activities at all times.

Pinch points and guarding. To avoid this physical safety hazard, all drill rigs must be equipped with guards on all gears, pulleys and rotating shafts. The drilling firm employed as a subcontractor will comply with OSHA and industry standards as a condition of work.

Overhead work and cable handling. To avoid falling equipment and cable handling risks, drillers will be required to maintain equipment in safe condition and conduct daily inspections of the equipment. Hardhats will be required for all personnel working on or around drill rigs.

Drilling contractor employees will be required to meet the 29 CFR 1910.120 requirements for 40 hours of safety training. Drilling employees will be required to follow safe work practices including: not wearing loose clothing, wearing hardhats, safety glasses and steel toed boots, wearing gloves when handling contaminated soils and maintaining awareness of drill rig operations.



## 3.1.2 Soil Handling and Excavation Hazards

The operation of heavy earthmoving and excavating equipment in a construction environment is potentially hazardous. The following are specific hazards associated with such operations:

Striking underground utilities

Exposure to petroleum products

Noise exposures

Falling, slipping, and tripping

Entering trenches/excavations.

Heavy equipment and excavation equipment hazards. These hazards are primarily related to maintenance, the condition of and proper operation of the equipment. The excavation contractor will be required to have heavy equipment safety programs in place, including inspections and maintenance, and will be expected to meet all applicable safety equipment requirements. Operators will be required to operate equipment in a cautious manner consistent with industry standards and have specialized training in hazardous waste site work pursuant to 29 CFR 1910.120

### 3.2 Mitigation of Potential Hazards

# 3.2.1 Striking Underground and Overhead Utilities

The potential for striking utilities, especially gas and electric, will be a concern throughout drilling and excavating operations. The following rules will govern all drilling/excavation tasks:

Prior to drilling/excavating, contact all underground utility companies to have locations of utility lines marked and identified.

All elevated equipment must be kept no less than 20 feet from any overhead utility lines, unless prior approval is given by utility companies or special conditions are met.

# 3.2.2 Exposure to Petroleum Products and Chemical Hazards

Prior testing at the site has identified petroleum hydrocarbon contamination. The fuel constituents that may be encountered and the potential exposure pathways are described below.

Constituents of diesel that may be encountered include:

Benzene, toluene, ethylbenzene, and xylenes.

Constituents of gasoline that may be encountered include:

Benzene, toluene, ethylbenzene, and xylenes.



Constituents can enter the body through:

Inhalation, ingestion, and absorption through the skin.

The result from exposures can include:

Eye/nose/throat/skin irritation, headache, fatigue, nausea, dizziness, dermatitis, nervousness, weakness, insomnia, and constipation.

The primary method for avoiding exposure to petroleum products on the project, will be establishing a monitoring program and assigning the appropriate personal protective equipment (PPE). Work will commence with personnel in Level D PPE, consisting of hard hats, safety glasses/goggles, long pants and shirts, gloves and steel-toed boots. Site workers will be required to upgrade to Level C PPE, consisting of respirators with organic vapor and dust cartridges, and/or tyvek coveralls, and chemical resistant gloves as warranted by site conditions. If gasoline is a potential contaminant, a photoionization detector (PID) will be used to monitor concentrations of volatile organic compounds in work areas as described below.

#### 3.2.2.1 Inhalation

Breathing a gas, vapor, mist, fume, or dust is the most common accidental form of exposure; this route of entry is the most likely to cause systemic illness. Half-face respirators with the appropriate cartridges or dust filters may be required while conducting sampling, excavating, construction, drilling, or well development operations. No excessive facial hair, which interferes with a satisfactory fit of the mask-to-face seal, will be allowed on personnel required to wear respiratory protective equipment.

Listed below are threshold limit values which will be used in determining when exposure to organic gasoline vapors is sufficient to require use of respirators by on- site personnel. Two exposure indices are given: The Time Weighted Average (TWA) defined as the average concentration for a normal eight-hour workday and a forty-hour work week, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect; and the Short-Term Exposure Limit (STEL) defined as a fifteen minute TWA exposure which should not be exceeded at any time during a workday and should not be reached more than four times in a work day with a minimum of one hour between exposures. The values shown below represent published values as determined by either the American Conference of Governmental Industrial Hygienists or the Occupational Safety and Health Administration guidelines.

Individual Hazard Evaluation Parameters

Gasoline:  $TWA = 300 \text{ ppm or } 890 \text{ mg/m}^3$ 

STEL =  $500 \text{ ppm or } 1,480 \text{ mg/m}^3$ 

Benzene:  $TWA = 1 \text{ ppm or } 3 \text{ mg/m}^3$ 

 $STEL = 5 \text{ ppm or } 15 \text{ mg/m}^3$ 

Toluene:  $TWA = 100 \text{ ppm or } 377 \text{ mg/m}^3$ 

 $STEL = 150 \text{ ppm or } 560 \text{ mg/m}^3$ 



Ethylbenzene: TWA =  $100 \text{ ppm or } 434 \text{ mg/m}^3$ 

 $STEL = 125 \text{ ppm or } 543 \text{ mg/m}^3$ 

 $TWA = 100 \text{ ppm or } 434 \text{ mg/m}_3^3$ 

 $STEL = 150 \text{ ppm or } 651 \text{ mg/m}^3$ 

Notes: ppm= parts per million; mg/m³= milligrams per cubic meter

Photoionization detectors read total organic vapors (TOVs), which include all constituents of gasoline and other volatile compounds. Because of the low TWA and STEL limits for benzene, this gasoline constituent is of the most concern for worker exposure. In general, the maximum amount of benzene in gasoline is less than 4%. Based on this data, it appears that a conservative estimate of the percentage of benzene which may be in organic vapors measured with the PID would be 10%.

Based on the assumption that the maximum amount of benzene possible in the TOV readings is 10%, a reading of 10 ppm on the PID would give an estimated 1 ppm of benzene, which is the TWA level for benzene. Therefore, it will be assumed that the site specific TWA threshold for benzene will be reached when TOV levels measured with the PID reach 10 ppm, and the STEL threshold for benzene will be reached when TOV levels reach 50 ppm. Respirators will be donned as described below.

Respirators will be donned when TOV readings in the breathing zone reach 50 ppm for at least 5 minutes or at any time that TOV readings exceed 50 ppm.

Respirators will be donned when TOV readings in the breathing zone reach 10 ppm for periods exceeding 15 minutes.

Half face respirators are generally considered to provide a 10x protection factor. To be conservative with the health and safety of on-site personnel, should TOVs in the breathing zone exceed 5 times the STEL (250 ppm) at any time, or 5 times the TWA (50 ppm) for periods exceeding 15 minutes, personnel will stop work and evacuate the area until concentrations return to less than these threshold levels.

## 3.2.2.2 Skin Absorption

Skin exposure to hazardous materials may result in skin irritation or penetration. Skin penetration is probably the second most common accidental means of entry of chemicals into the body. The following precautions may be required when performing any on-site activities described in this plan.

Ensure that all skin areas that may be contacted are protected during site work by wearing rubber boots and gloves.



Disposable coveralls should be donned whenever site work brings the outer clothing of any personnel in contact with contaminated soils, liquids or surfaces.

After completing the day's work, remove and dispose of contaminated coveralls; care should be taken to avoid skin contact with these items.

Unnecessary contact with potentially contaminated surfaces should be avoided; whenever possible, personnel should avoid walking through mud, puddles, and other discolored surfaces; kneeling on the ground; leaning, sitting, or placing equipment on drums, other containers, vehicles, or the ground.

#### 3.2.2.3 Ingestion

Hazardous materials may be carried to the mouth by hand when eating, drinking, chewing gum or tobacco, or smoking. These activities are therefore prohibited during and after work until contaminated clothing has been removed. In addition, liquids will not be pipetted or syphoned by mouth under any circumstances. Hands and face must be thoroughly washed upon leaving the work area and before eating, drinking, or any other ingestion occurs.

Medically prescribed drugs used by personnel during field activities where the potential for inhalation, absorption, or ingestion of toxic substances exists should be used only after consultation with a qualified physician.

### 3.2.2.4 Eye Contact

The eyes may be harmed by chemicals in solid, liquid, or vapor form. Irritant effects vary in degree from mild to severe. The following precautions to avoid eye injury will be taken when at the site:

Do not wear contact lenses when working or while wearing contaminated gloves or other contaminated clothing.

Do not rub eyes while working.

Safety goggles or glasses (without side perforations) may be required by the Site Health & Safety Officer.

## 3.2.3 Noise Exposure

Drilling and excavation equipment presents potentially high noise level exposures. Excessive noise interferes with communication, disorients workers and can result in hearing loss. Ideally, personnel who do not need to be near noisy equipment will stay as far away as possible to lower risk of hearing loss. Personnel who must work near noisy equipment shall wear hearing protection such as ear plugs or muffs.



# 3.2.4 Falling, Slipping and Tripping

The ground around the work area may be cluttered with pieces of equipment. This situation may cause workers to trip and fall. Project personnel shall reduce the risk of falling, slipping, and tripping by performing good housekeeping and arranging the work area in a manner that reduces the necessity of workers to step over equipment whenever possible.

# 3.2.5 Entering Trenches/Excavations

These areas present serious potential hazards due to the possible accumulation of hazardous atmospheres, insufficient oxygen content, and cave-ins or collapse of trench walls. With respect to trenches/excavations entered by workers exceeding five feet in depth, specific regulatory requirements appear in Subpart P of 29 CFR Part 1928. If a trench/excavation greater than five feet deep must be entered, the trench/excavation wall must be either shored or a protective box placed in the trench to avoid wall collapses. Vehicles and other equipment near excavations shall remain at a safe distance. Barriers may have to be used to prevent encroachment. Stockpiling of soil removed from excavations shall be done in a manner which minimizes the risk of cave-ins.

Prior to entering any trench/excavation, a PID will be used to monitor concentrations of organic compounds in the trench/excavation. PID readings will be taken for every 10 to 15 feet of trench by the Site Health & Safety Officer or another qualified user. Should organic concentrations in the trench/excavation exceed 50 ppm, or 10 ppm for periods of 15 minutes or more, anyone entering the trench/excavation shall be required to wear respirators with organic vapor and dust cartridges. Should concentrations of organic compounds in the trench exceed 250 ppm, or 50 ppm for periods of 15 minutes or more, personnel will stop work and evacuate the area until concentrations return to below these threshold values.

#### 3.2.6 Heat Stress

Incidents of heat stress depend upon a variety of factors. For workers wearing impermeable and semi-permeable clothing, or respirators, as required with Level C PPE, physiological monitoring will be instituted. The monitoring will begin when the work period is anticipated to exceed one hour and the work required involves significant physical activity in Level C PPE. Workers will be monitored by measuring the heart rate. If the heart rate exceeds 110 beats per minute, the next work cycle will be shortened by one-third. A worker will not be permitted to wear impermeable or semi-permeable clothing and work in a Level C environment if the worker's heart rate continues to exceed 110 beats per minute at the beginning of a rest period even after reducing the length of the work period by two-thirds. Workers will also be required to take breaks as required in OSHA 29 CFR Part 1910.120. All subcontractors will be required to supply their personnel with personal protective equipment, as necessary.

# 4.0 WORK ZONES AND SECURITY MEASURES

Measures will be taken to prevent access to persons unauthorized to enter a particular work zone. This shall be accomplished by limiting the movement of individuals and equipment between work



zones and establishing access control points, as necessary. Three zones (the construction zone, contamination reduction zone, and exclusion zone) will be established during on-site work.

### 5.0 DECONTAMINATION PROCEDURES

Prior to leaving the contamination reduction zone, personnel will decontaminate themselves, as deemed necessary to avoid transferring contamination to clean areas of the site. Decontamination will include the following steps, as applicable:

- 1) Deposit equipment exposed to contaminants (tools, sampling devices, etc.) on plastic drop cloths or in plastic garbage bags within the contamination reduction zone if the equipment is not to be immediately cleaned.
- 2) Scrub outer boots and gloves (if worn) with decontamination solution or detergent. Rinse off with clean water.
- Remove tyvek suits, outer boots, and gloves (if worn). Deposit in plastic garbage bags.
- 4) Upon leaving the contamination reduction zone, personnel must thoroughly wash all exposed skin surfaces before eating, drinking, chewing or smoking.
- 5) After daily work is completed, non-reusable protective equipment will be removed and placed in plastic garbage bags for disposal.

All equipment and tools exposed to contaminants will be thoroughly cleaned. The following decontamination procedures will be followed for all equipment.

- Steam clean, or wash all contaminated parts with fresh water and a detergent such as Alconox or Liquinox.
- 2) Rinse washed equipment with fresh water.
- 3) Place decontaminated tools in clean plastic bags.

All subcontractors are responsible for the decontamination of their own equipment.

## 6.0 EMERGENCY RESPONSE INFORMATION

The following procedure will be observed in the event of physical injury or a serious health problem:

1) Immediately notify supervisor and Site Health and Safety Officer.



- 2) Shutdown construction operations.
- Remove injured or exposed person(s) from immediate danger. This action may coincide with steps 1 and 2.
- 4) Perform First Aid as necessary.
- 5) In case of serious injury, call AMBULANCE AT 911 for transport to a local hospital.
- 6) Evacuate other on-site personnel to a safe place until the Site Health and Safety Officer determines that it is safe for work to resume.
- 7) Implement steps to prevent a recurrence of the accident.

The nearest hospital is Palm Drive Hospital, located at 501 Petaluma Avenue, Sebastopol, California. The facility is reached by going east on McFarlane Road. Turn left on Hessel Road. Turn left on Highway 116 (heading northwest). Continue on Highway 116 towards Sebastopol. Once in the southern city limits of Sebastopol, Highway 116 is also named Gravenstein Avenue. At the point when Gravenstein Avenue becomes a one way street, the name changes to Petaluma Avenue. Approximately ¼ mile from the beginning of Petaluma Avenue is the Hospital. Palm Drive Hospital is on the right side of Petaluma Avenue. The hospital route map is provided as Plate 1. A map with the location, address, and telephone number of the nearest medical facility is shown on Plate 2. The emergency route map and hospital location map will be posted and made available to all subcontractors on-site.

# **Emergency Telephone Numbers:**

EMERGENCY/AMBULANCE 911

Palm Drive Hospital (707) 823-8511

Project Responsible Party:

Gerald Cook (650) 323-3714

Consultant:

Brunsing Associates, Inc. (707) 838-3027

## 7.0 HEALTH AND SAFETY MEETING

Prior to commencement of site activities, a safety orientation meeting shall be held to review this Site Health and Safety Plan. During this meeting, all field personnel and subcontractors will be required to have read this Plan, comply with its requirements, and sign a form agreeing to the information and directions set forth in the Plan. Subcontractors will be expected to provide their own Health and Safety Plan. Additional field safety meetings will be held on a weekly basis to



accommodate subcontractors arriving to the project at a later date and to answer any questions, which may result from field activities. In the event of an injury or exposure, a safety meeting will be held to discuss the cause and how to avoid future problems.

The safety orientation meeting and field safety meetings will review the following information:

Site hazards, particularly those associated with subcontractor tasks, and actions that can be taken to mitigate these hazards.

Health hazards associated with petroleum substances that may be encountered during construction.

Required personal protective equipment and instructions for use.

Personnel and equipment decontamination procedures.

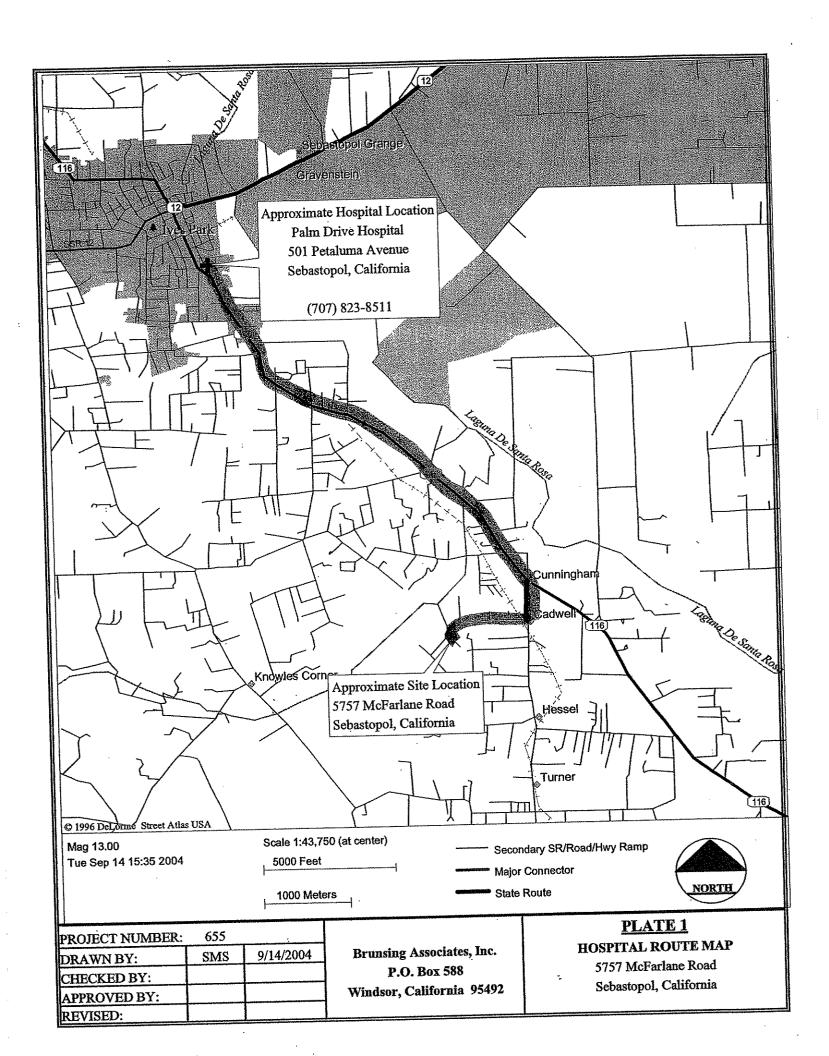
Emergency response plan.

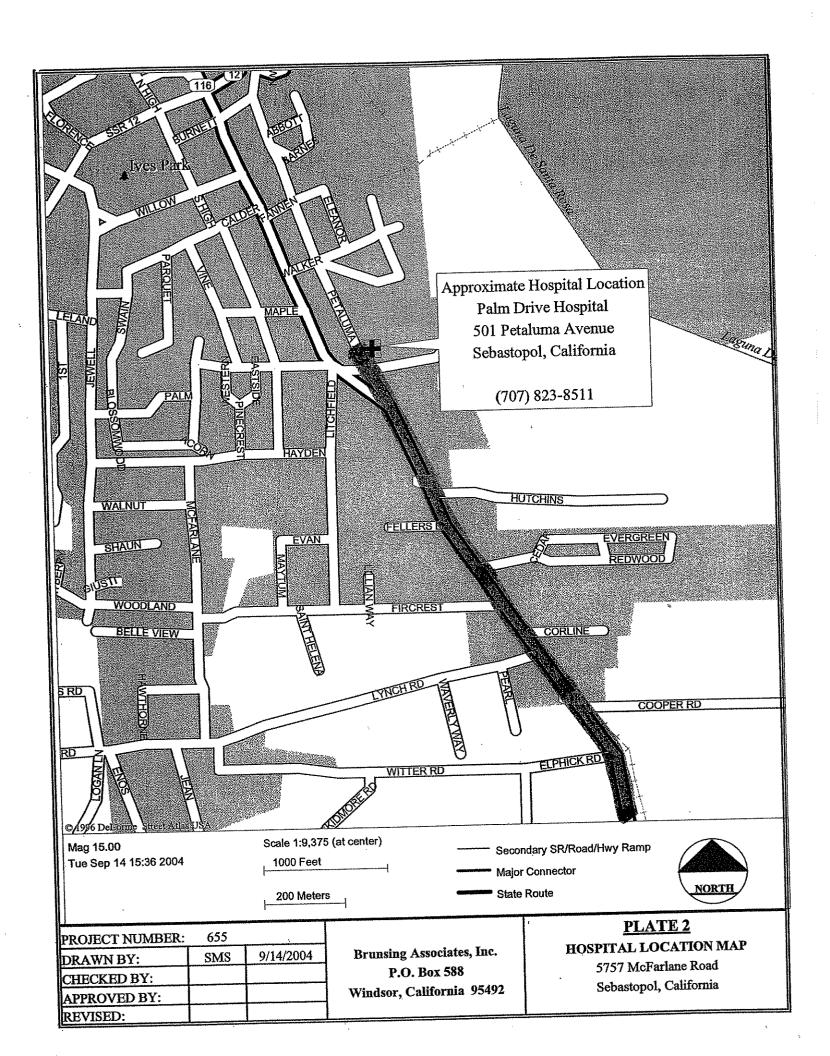
All subcontractors will be provided with a copy of this Site Health and Safety Plan prior to construction and will be expected to share it with their employees. A copy of this Plan will also be kept available on-site during construction activities.



# **PLATES**







# ATTACHMENT A

Health and Safety Plan Signature Form



# HEALTH AND SAFETY PLAN SIGNATURE FORM

PROJECT: 5757 McFarlane Road, Sebastopol, California PROJECT MANAGER: Steve Silva SITE SAFETY OFFICER: Steve Silva, William H. Coset, or Dave Conley  Prior to beginning field activities, I have been given an opportunity to read the contents of this Site Health and Safety Plan and to have my questions answered. By the presence of my signature below, I certify that I have received a copy of this Plan and understood the potential hazards at the site. I further certify that I am in full compliance with OSHA 29 CFR 1910.120.							
SITE PERSONNEL: Name	Signature	Date					
		***************************************					
<del></del>							

